

AMENDMENTS TO THE CLAIMS

The listing of the claims will replace all prior versions and listing of claims in the application.

Listing of the Claims:

1.-5. (Cancel)

6. (Currently amended) A method of manufacturing a battery according to claim 5, wherein the conveying means is disposed away from a delivering open of a filling unit in a predetermined distance and includes a roller capable of adjusting the distance to the filling unit in a position opposite to the delivering open of the filling unit; and

having a positive electrode and a negative electrode, and an electrolyte layer, the method comprising the steps of:

conveying at least one electrode with a conveyor;

forming the electrolyte layer onto the electrode by applying an electrolyte, which is discharged from a delivery opening of a filling unit under pressure, onto the electrode as the electrode is conveyed to a position under the delivery opening; and

maintaining a thickness of the electrolyte layer by adjusting a roller that is positioned on a side of the conveyor opposite the delivery opening.

7. (Currently amended) A method of manufacturing a battery according to claim 6, wherein the flow path of the electrolyte is pushed at the delivery opening is in a direction such that the angle formed by the flow path and a tangent of the roller at a position closest to the delivery opening is in a range of 80° to 100° from a direction where an angle is within a range of 80° to 100° in response to a tangent direction of the roller in the position just under the delivering open of the filling part.

8. (Currently amended) A method of manufacturing a battery according to claim [[1]] 6, wherein the electrolyte is delivered as being applied heat is applied to the electrolyte for adjusting its viscosity as the electrolyte is applied to the electrode.

9. (Currently amended) A method of manufacturing a battery according to claim [[1]] 6, wherein ~~the electrolyte is delivered in a state where the electrolyte is applied to heat is applied to the electrolyte for adjusting its viscosity to be in order to posses its viscosity~~ within a range of 0.001 Pa·s to 0.05 Pa·s as the electrolyte is applied to the electrode.

10. (Currently amended) A method of manufacturing a battery according to claim [[2]] 6, comprising the steps of:

forming a plurality of electrolyte layers by intermittently applying the electrolyte on at least one face of at least one electrode, wherein the electrode has a belt shape; and

cutting the at least one electrode at a position formed intermittently between the electrolyte layers;

wherein the electrolyte is intermittently applied wherein the electrolyte is intermittently delivered by an open-and-close movement of a shutter disposed in an electrolyte flowing path of the filling unit a electrolyte delivering machine.

11. (Currently amended) A method of manufacturing a battery according to claim [[2]] 10, wherein the electrolyte layers are formed on a face of the at least one electrode after the electrolyte is delivered and dried, the electrolyte layers are formed on an electrode face; and comprises comprising a step of rolling the face of the at least one electrode face with a plastic film.

12. (Currently amended) A method of manufacturing a battery according to claim [[1]] 6, wherein the electrolyte comprises at least one of electrolyte salt and a macromolecular compound as for the electrolyte, electrolyte salt and macromolecular compounds are included.

13. (Currently amended) A method of manufacturing a battery according to claim 6 †2, wherein the electrolyte comprises at least one of electrolyte salt, macromolecular compound, and a nonaqueous solvent as for the electrolyte, nonaqueous solvents are further included.

14. (Currently amended) A method of manufacturing a battery according to claim 12, wherein the electrolyte comprises as for the a lithium salt, at least one material among a selected from the group consisting of LiPF₆, LiAsF₆, LiBF₄, LiClO₄, LiCF₃SO₃, Li(CF₃SO₂)₂N and or LiC₄F₉SO₃ is included.

15. (Currently amended) A method of manufacturing a battery according to claim 12, wherein as for the macromolecular compounds is , at least one material among selected from the group consisting of polyvinylidene polyvinylidene fluoride, polyacrylonitrile, acrylonitrile acrylonitrile butadiene-rubber, acrylonitrile acrylonitrile butadiene styrene resin, acrylonitrile acrylonitrile polyethylene chloride propylene diene styrene resin, acrylonitrile acrylonitrile vinyl chloride resin, acrylonitrile acrylonitrile metaacrylate meta acrylate resin, acrylonitrile acrylonitrile acrylate resin, polyethylene oxide, or, polyether denatured siloxane, copolymer comprising made of polyvinilidene polyvinylidene fluoride combined with other another of said macromolecular compounds, copolymer comprising made of polyacrylonitrile combined with other another of said macromolecular compounds, and copolymer comprising made of polyethylene oxide combined with other another of said macromolecular compounds is included.

16. (Currently amended) A method of manufacturing a battery according to claim 13, wherein as for the nonaqueous solvent is solvents, at least one material among a selected from the group consisting of ethylene carbonate, propylene carbonate, butylenes butylene carbonate, γ -butyl lactone γ -butylrolactone, γ -valerolactone, diethoxyethane, tetrahydrofuran, 2-methyltetrahydrofuran, 1,3-dioxolane, methyl acetate, methyl propionicacid, dimethyl carbonate, diethyl carbonate, ethylmethyl carbonate, 2,4-difluoroanisole, 2,6-difluoroanisole, and or, 4-bromoveratrol is included.

17. (Currently amended) A method of manufacturing a battery according to claim [[1]] 6, wherein when the electrode is a positive electrode the electrode includes a lithium mixed oxide having the shown in a composition formula Li_xMO₂ (herewhere, x satisfies 0.05≤x≤1.12, and M is more than one kind of transition metal); and

wherein when the electrode is a negative electrode the electrode includes a ~~as the material capable of occluding and releasing lithium, at least one material among a selected from the group consisting of a carbonaceous material materials, silicon, a silicon compound compounds, a metal oxide, and a macromolecular material materials is included.~~

18. (Withdrawn) A coating machine comprising :
 - a nozzle for delivering coating materials;
 - a conveying means for conveying a body-to-be-coated disposed in a position opposite to the nozzle and moving the coated body relative to the nozzle;
 - a pressurization means for applying the coating materials on the body-to be-coated while being conveyed via the nozzle with the conveying means;
 - a closing means for closing a flowing path of the coating materials inside the nozzle
 - a control means for intermittently driving the closing means in a manner to intermittently deliver the coating materials from the nozzle.
19. (Withdrawn) A coating machine according to claim 18, wherein the conveying means is provided with a roller for supporting the body-to be-coated at the back in the position opposite to the nozzle.
20. (Withdrawn) A coating machine according to claim 18, a top part of the nozzle having a delivering open for delivering the coating materials is provided with a top face orthogonal to the flowing path of the coating materials and inclined faces positioned in a conveying direction of the body-to be-coated and in an opposite direction of that direction in the top face.
21. (Withdrawn) A coating machine according to claim 20, wherein the inclined faces in the top part of the nozzle has an angle in the range of 50° to 120° for the top face of the nozzle in the conveying direction of the body-to be-coated and has an angle in the range of 10° to 45° for the top face of the nozzle in the opposite direction relative to the conveying direction of the body-to be-coated.

22. (Withdrawn) A coating machine according to claim 18, wherein the closing means has a bearing whose cross sectional face is a circular shape disposed in the middle of the flowing path of the coating materials; and

an open-and-close shaft whose cross sectional face is a semi circular shape has a rotatable notch in a part of the bearing.

23. (Withdrawn) A coating machine according to claim 18, wherein the coating materials are employed as electrolyte;

the coated body is employed as an electrode such as a positive electrode or a negative electrode; and

a plurality of electrolyte layers is intermittently formed thereon.

24. (Withdrawn) A coating machine according to claim 23, wherein the electrode which a plurality of electrode mixture layers including electrode active materials is intermittently formed on an electrode collector is employed in order to form the electrolyte layers on the electrode mixture layers.

25. (Withdrawn) A coating machine according to claim 24 comprises a detecting means for detecting ends of the electrode mixture layers, which are intermittently formed; and

a control means for controlling movement of the pressurizing means and the closing means on the basis of a timing detected by the detecting means.

26. (Withdrawn) A coating machine according to claim 18, wherein the electrode mixture including electrode active materials is employed as the coating materials;

the body-to-be-coated is employed as an electrode collector; and

a plurality of the electrode mixture layers including the electrode mixture is intermittently formed on the electrode collector.